

CHRISTOPHER N. BALAKRISHNAN

August 2019

CONTACT

Department of Biology
East Carolina University
Howell Science Complex
Greenville, NC 27858

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EDUCATION

PhD Biology	Boston University advisor: Dr. Michael Sorenson	2005
BA Biology	University Of Pennsylvania	1997

PROFESSIONAL EXPERIENCE

Program Director	National Science Foundation Division of Environmental Biology Evolutionary Processes Cluster	2019 - present
Associate Professor	East Carolina University Department of Biology	2017 - present
Assistant Professor	East Carolina University Department of Biology	2012 - 2017
Research Scientist	University of Illinois at Urbana-Champaign Institute for Genomic Biology mentor: Dr. David F. Clayton	2008 - 2011
Postdoctoral Fellow	Harvard University Department of Organismic & Evolutionary Biology Museum of Comparative Zoology mentor: Dr. Scott V. Edwards	2005 - 2008

EXTERNAL GRANTS

National Science Foundation DEB 1754406

Collaborative Research: Comparative Genomics of Host-specific Adaptation and Life History Evolution in Brood Parasitic Birds (total award: \$1,147,451; \$169,792 to ECU)
PIs CN Balakrishnan, MD Sorenson, T Sackton, J DaCosta & WC Warren
Active 5/2018 -5/2022

National Institutes of Health NIEHS 1R15ES028436-01

Nutraceutical reduction of endocrine disruption in chemical induced hypospadias
(\$453,467)
PI KA McCoy, Co-I CN Balakrishnan

Active 3/2018 - 3/2021

National Science Foundation IOS 1456612

Collaborative Research: Mechanisms of Behavioral Innovation in Brood Parasitic Birds (total award: \$720,000; \$390,000 to ECU)

PIs CN Balakrishnan & ME Hauber

Active 6/2015 - 6/2020

National Science Foundation DEB 1457541

Research Coordination Network: Enabling Comparative Studies of the Process and Products of Sexual Selection in a Genomic Context

PI BA Loiselle, Co-PIs CN Balakrishnan, WA Boyle, M Braun, EH DuVal, M Munoz-Torres, M Pizo, TB Ryder, B Schlinger, T Staples, MS Webster (\$499,928).

Active 3/2015 - 3/2020

National Institutes of Health NIGMS 1R15GM109291-01

The genetic basis for reduced sexual dimorphism in stickleback throat coloration

PI J McKinnon, Co-Is CN Balakrishnan and K Peichel (\$316,241; \$71,538 supplement)

8/2014-3/2019

National Geographic Society

The Evolution of Mimicry in Brood Parasitic Finches (Vidua)

PI CN Balakrishnan (\$19,150)

8/2013-8/2016.

National Institutes of Health Challenge Grant RC1-GM091556-01

Neurogenomics of social behavior: songbird models

PI: D.F. Clayton, Key Personnel: CN Balakrishnan & SE London (\$971,178)

9/09-9/11

National Science Foundation

Doctoral Dissertation Improvement Grant (\$11,955)

2003-2004

INTERNAL GRANTS & SMALL AWARDS

Akron Zoo Conservation Fund (\$3,750).

East Carolina University Interdisciplinary Research Award (\$15,878), 2016/2017

Society for Systematic Biology Outreach Award (\$800), 2015

East Carolina University East-West Collaboration Program (\$24,880), 2013/2014

National Evolutionary Synthesis Center (NESCENT) Catalysis Meeting, 2013

The University of North Carolina General Administration (\$24,258), 2014

Harvard Museum of Comparative Zoology, Putnam Expedition Grant (\$4,780), 2007

Nuttall Ornithological Club, Charles Blake Fund Grant (\$2,500), 2006

FELLOWSHIPS & HONORS

Elective Member, American Ornithology Society

Innovation, Entrepreneurship & Engagement Fellowship, East Carolina University 2016-2019

Early Career Award, Thomas Harriot College of Arts & Sciences 2015/2016

Associate Editor, BMC Genomics 2014-2019

National Institutes of Health, Sensory Neuroscience Training Grant 2008-2010

American Ornithologists Union, Postdoctoral Travel Award 2009

Harvard University Certificate for Distinction in Teaching Spring 2007



American Ornithologists Union, Marsha Brady Tucker Travel Award 2004

American Ornithologists Union, Marsha Brady Tucker Travel Award 2003

PUBLICATIONS

*denotes ECU-affiliated student and postdoc authors

1. Feng, S, J Stiller *et al.* Densely sampling genomes across the diversity of birds increases power of comparative genomics analyses *Under Review*.
The Balakrishnan Lab contributed five new whole genome assemblies as part of this large community effort.
2. Louder, MIM*, **CN Balakrishnan**, A Louder, RJ Driver*, SE London & ME Hauber. An acoustic password enhances auditory learning in juvenile brood parasitic cowbirds. *Under Review*.
3. Termignoni-Garcia, F, MIM Louder, **CN Balakrishnan**, LA O'Connell & SV Edwards. Prospects for sociogenomics in avian cooperative breeding and parental care. *Under Review*.
4. Newhouse, DJ*, MB Serra, EA Tuttle, R Gonser & **CN Balakrishnan** (2019). Parent and offspring genotypes influence gene expression in early life. *Molecular Ecology*, *In press* (Available Online Early and on bioRxiv).
5. Kernbach, ME, DJ Newhouse*, JM Miller, RJ Hall, J Gibbons, J Oberstaller, D Selechnik, R Jiang, TR Unnasch, **CN Balakrishnan** & LB Martin (2019). Light pollution increases West Nile virus competence of a ubiquitous passerine reservoir species. *Proceedings of the Royal Society, Series B* 286. 20191051.
6. Louder, MIM*, S Lawson, KS Lynch, **CN Balakrishnan** & ME Hauber (2019). Neural mechanisms of auditory species recognition in birds. *Biological Reviews*, *In Press*, (Available Online).
7. Lansverk, AL*, K Schroeder*, SE London, SC Griffith, DF Clayton & **CN Balakrishnan** (2019). The variability of song variability in wild and domesticated zebra finches *Taeniopygia guttata*. *Royal Society Open Science* 6: 190273.
8. Louder MIM* & **CN Balakrishnan** (2019). "Transcriptome" entry in the Encyclopedia of Animal Cognition and Behavior (J Vonk and TK Shackelford, eds.), *Springer Nature Switzerland*.

9. Horton, BH, TB Ryder, IT Moore & **CN Balakrishnan** (2019). Gene expression in the social behavior network of the wire-tailed manakin (*Pipra filicauda*) brain. *Genes, Brains and Behavior*, e12560.
10. Lynch, KS, LA O'Connell, MIM Louder*, **CN Balakrishnan** & EK Fischer (2019). Understanding the loss of maternal care in avian brood parasites using preoptic area transcriptome comparisons in brood parasitic and non-parasitic blackbirds. *G3: Genes, Genomes & Genetics* 4, 1075-1084.
11. Hofmeister EK, **CN Balakrishnan** & CT Atkinson (2018). Population differences in susceptibility to *Plasmodium relictum* in zebra finches *Taeniopygia guttata*. *Avian Diseases* 62, 351-354.
12. Louder, MIM*, ME Hauber & **CN Balakrishnan** (2018). Early social experience alters transcriptomic responses to species-specific vocal stimuli in female songbirds. *Brain Behavioural Research* 347, 69-76.
13. Kopp, M, MS Servedio, TC Mendelson, RJ Safran, RL Rodriguez, EC Scordato, LB Symes, **CN Balakrishnan**, ME Hauber, DM Zonana & GS van Doorn (2018). Mechanisms of assortative mating in speciation: connecting theory and empirical research. *The American Naturalist* 191(1), 1-20.
14. Newhouse, DJ*, EK Hofmeister & **CN Balakrishnan** (2017). Transcriptional response to West Nile virus infection in the zebra finch (*Taeniopygia guttata*). *Royal Society Open Science* 4: 170296.
15. Hofmeister, EK, M Lund, V Shearn-Boschler & **CN Balakrishnan** (2017). Susceptibility and antibody response of the laboratory model zebra finch (*Taeniopygia guttata*) to West Nile virus. *PLoS One* 12(1): e0167876.
16. Davidson, JD* & **CN Balakrishnan** (2016). Gene regulatory divergence during speciation in a songbird. *G3: Genes, Genomes & Genetics* 6:1357-1364. 
17. Louder, MIM*, HU Voss, TJ Manna, SS Carryl, SE London, **CN Balakrishnan** & ME Hauber (2016). Shared neural substrates of species recognition in parental and brood parasitic songbirds. *Neuroscience Letters* 622: 49-54.
18. Hebets, EA, AB Barron, **CN Balakrishnan**, ME Hauber, PH Mason & KL Hoke (2016). A systems approach to animal signaling. *Proceeding of the Royal Society B* 283(1826): 20152889.
19. Tuttle, EA, AO Bergland, MS Brewer, DJ Newhouse*, ZC Cheviron, M Stager, WC Warren, R Gonser, **CN Balakrishnan** (2016). Divergence and functional degradation of a sex chromosome-like supergene. *Current Biology* 26(3):344-350. 

Featured in: *The Molecular Ecologist*, 2016 "Supergenes and sparrows with four sexes"; *Current Biology*, 2016 "Supergenes: The genomic architecture of a bird with four sexes"; *Science*, 2016, "Perspective: Avian Supergenes"
20. Toews, DPL, L Campagna, SA Taylor, **CN Balakrishnan**, DT Baldassarre, PE Deane-Coe, MG Harvey, DM Hooper, DE Irwin, CD Judy, NA Mason, JE McCormack, KG McCracken, CH

Oliveros, RJ Safran, ESC Scordato, K Faust Stryjewski, A Tigano, JAC Uy & BM Winger (2016). Genomic approaches to understanding population divergence and speciation in birds. *The Auk: Ornithological Advances*. 133: 13-30.

21. Lansverk, AL*, JB Dongmo, JC Schuetz & **CN Balakrishnan**. 2015. Parasitism of the black-crowned waxbill *Estrilda nonnula* by pin-tailed whydahs *Vidua macroura*: implications for coevolution. *Wilson Journal of Ornithology* 127(4):733-739.
22. Newhouse, DJ* & **CN Balakrishnan** (2015). High MHC diversity despite bottlenecks in wild and domesticated zebra finches. *BMC Evolutionary Biology* 15:256.
23. Singhal, S, EM Leffler, K Sannareddy, I Turner, O Venn, DM Hooper, AI Strand, Q Li, B Raney, **CN Balakrishnan**, SC Griffith, G McVean & M Przeworski (2015). Stable recombination hotspots in birds. *Science* 350: 928-932.

Featured in: *Science*, 2015, "Perspective: Putting the breaks on meiosis"

24. Lin, Y., **C.N. Balakrishnan** & D.F. Clayton (2014). Functional genomic analysis and neuroanatomical localization of mir-2954, a song responsive, sex-linked microRNA. *Frontiers in Neuroscience* 8:409.
25. **Balakrishnan, CN**, M Mukai, RA Gonser, JC Wingfield, SE London, EM Tuttle & DF Clayton (2014). Brain transcriptome sequencing and assembly of three songbird model systems for the study of social behavior. *PeerJ*: e396
-selected as PeerJ "Pick of the Year" 2015
26. Bade LM*, **CN Balakrishnan**, EM Pilgrim, SB McRae, JJ Luczkovich (2014). A genetic technique to identify the diet of cownose rays, *Rhinoptera bonasus*: analysis of shellfish prey items from North Carolina and Virginia. *Environmental Biology of Fishes* 97: 999-1012.
27. **Balakrishnan CN**, C Chapus, MS Brewer,* & DF Clayton (2013). Brain transcriptome of the violet-eared waxbill *Uraeginthus granatina* and recent evolution in the songbird genome. *Open Biology* 3(9):130063.
28. **Balakrishnan, CN**, Y Lin & DF Clayton (2012). RNA-seq transcriptome analysis of male and female zebra finch cell lines. *Genomics* 100:363-369.

Publications prior to ECU

29. Itoh, Y, K Kampf, **CN Balakrishnan** & A.P. Arnold (2011). Karyotypic polymorphism of the zebra finch Z chromosome. *Chromosoma* 120:255-264.
30. Janes DE, C Chapus, Y Gondo, DF Clayton, S Sinha, C Blatti, M Fujita, **CN Balakrishnan** & S.V. Edwards (2011). Reptiles and mammals have differentially retained long non-coding sequences from the amniote ancestor. *Genome Biology and Evolution* 3: 102-113.
31. Warren et al. (2010) The genome of a songbird. *Nature* 464: 757-762.
32. **Balakrishnan, CN**, J. Lee & SV Edwards (2010). Phylogeography and phylogenetics in the nuclear age. Pp. 65-88. In: P.R. and B.R. Grant (eds.) In search of the causes of evolution: from field observations to mechanisms. *Princeton University Press. Princeton, NJ.*

33. **Balakrishnan, CN**, R Ekblom, R Godinez, M Volker, H Kotkiewicz, H Westerdahl, D Burt, T Graves, D Griffin, W Warren & SV Edwards (2010). Gene duplication and fragmentation of the songbird major histocompatibility complex (MHC). *BMC Biology* 8: 29.
34. Ekblom R, **CN Balakrishnan**, T Burke & J Slate (2010). Digital gene expression analysis of the zebra finch genome. *BMC Genomics* 11: 219.
35. **Balakrishnan, CN**, SV Edwards & D.F. Clayton (2010). The zebra finch genome and avian genomics in the wild. *Emu* 110: 233-241.
36. Nam, KN, C Mugal, B Nabholz, H Schielzerth, J Wolf, N Backström, A Künstner, **CN Balakrishnan**, A Heger, C Ponting, DF Clayton & H Ellegren (2010). Comparative genomics and gene sequence evolution in birds. *Genome Biology* 11: R68.
37. Künstner, A, JB Wolf, N Backström, O Whitney, **CN Balakrishnan**, L Day, SV Edwards, BA Schlinger, RK Wilson, E. Jarvis, WC Warren & H. Ellegren (2010). Comparative genomics based on massive parallel transcriptome sequencing reveals patterns of substitution and selection across 10 bird species. *Molecular Ecology* 19: 266-276.
38. Clayton, DF, **CN Balakrishnan** & S.E. London (2009). Integrating genomes, brain and behavior in the study of songbirds. *Current Biology* 19: R865-873.
39. **Balakrishnan, CN** & S.V. Edwards (2009). Nucleotide variation, linkage disequilibrium and founder-facilitated speciation in wild populations of the zebra finch (*Taeniopygia guttata*). *Genetics* 181: 645-660.
40. **Balakrishnan, CN**, KM Sefc & M.D. Sorenson (2009). Incomplete reproductive isolation following host shift in brood parasitic indigobirds. *Proceedings of the Royal Society, Series B* 276: 219-228.
41. **Balakrishnan, CN** & M.D. Sorenson (2007). Dispersal ecology versus host specialization as determinants of ectoparasite distribution in brood parasitic indigobirds and their estrildid finch hosts. *Molecular Ecology* 16: 217-229.
42. **Balakrishnan, CN** & MD Sorenson (2006). Premating reproductive isolation among sympatric indigobird species and host races. *Behavioral Ecology* 17: 473-478.
Featured In: Science, 2006, "Speciation Standing In Place"
43. Edwards, SV, SB Kingan, JD Calkins, **CN Balakrishnan**, WB Jennings, WJ Swanson & MD Sorenson (2005). Speciation in birds: Genes, geography, and sexual selection. *Proceedings of the National Academy of Sciences USA* 102: 6550-6557.
44. Payne, RB, CR Barlow, **CN Balakrishnan** & MD Sorenson (2005). Song mimicry by brood-parasitic indigobirds *Vidua camerunensis* of Black-bellied Firefinch *Lagonosticta rara* and other finches in West Africa. *Ibis* 147: 130-143.
45. Sorenson MD, **C.N. Balakrishnan** & RB Payne (2004). Clade-limited colonization in brood parasitic finches (*Vidua* spp.). *Systematic Biology* 53(1): 140-153.
46. **Balakrishnan, CN**, SL Monfort, A Gaur, L Singh & MD Sorenson (2003). Phylogeography and conservation genetics of the Eld's deer (*Cervus eldi*). *Molecular Ecology* 12:1-10.

47. Ayyanathan, K, WJ Fredericks, C Berking, M Herlyn, **C Balakrishnan**, E Gunter, FJ Rauscher, III (2000). Hormone-dependent tumor regression *in vivo* by an inducible transcriptional repressor directed at the PAX3-FKHR oncogene. *Cancer Research* 60 (20): 5803-5814.
48. Rauscher III, FJ, JF Morris, WJ Fredericks, JL Guisa, **C Balakrishnan**, M Jost, M Heerlyn & U. Rodeck (1998). Characterization of monoclonal antibodies directed to the amino terminus of the WT-1 Wilms Tumor suppressor protein. *Hybridoma* 17: 191-197.

TEACHING EXPERIENCE

East Carolina University:

Biological Evolution (BIOL3620), Fall 2013, Spring 2015,2016,

Genome Evolution (BIOL4240), *Evolution of Genes and Genomes* (BIOL7240), Spring 2012-2014,

Next Generation Sequencing Methods and Data Analysis (BIOL6220), Spring 2013-2017, 2019

Advances in Ecology (BIOL6250), Fall 2014-2016.

University of Illinois: *Social Dynamics in Natural Populations* (MCB 493), Spring 2011

Ornithology (IB 462), Spring 2010, 2011 (guest lectures on Speciation & Phylogenetics)

Harvard University: *Dinosaurs and Their Relatives* (SB57), Teaching Fellow, Spring 2007

Genetics, Genomics and Evolution (LS1B), Teaching Fellow, Spring 2006

Boston University: *Evolution* (BI 504), Teaching Fellow, Spring 2001; *Introductory Biology I*

Lab (BI107), Teaching Fellow, Fall 1999 and Head Teaching Fellow, 2000; *Introductory*

Biology II Lab (BI108), Teaching Fellow, Spring 2000, 2001, 2003 and Summer 2000

Smithsonian Institution, Conservation & Research Center, Field Instructor/Teaching

Assistant: *GIS & Remote Sensing for Wildlife Managers*, Spring 1999, *Field Techniques in Conservation Biology* (BIOL 456, University of Pennsylvania), Fall 1998

PROFESSIONAL SERVICE & OUTREACH

Nerd Nite: Founder (www.nerdnite.com)

Nerd Nite is an informal lecture series geared towards general audiences. Founded in Boston in 2003, Nerd Nite has spread to over one hundred cities around the world.

Selected Press Coverage: *Nova Next*, 8 January 2014, "Science is everywhere, but are we smarter for it?"; *New York Times*, 5 January 2012, "Continuing education, at the bar"; *New York Times*, 1 June 2008, "Where nerds rule the night"; *Popular Science (Popsci.com)*, 1 April 2008, "Driving intellect and quenching thirst"; *Reuters*, 12 June 2007, "New York City geeks revel in uncoolness at 'nerd nite'"; *Boston Globe*, 18 April 2005, "At some local nightspots, nerds rule"

Society Memberships: Association of Field Ornithologists, American Ornithology Society (Committee on Diversity & Inclusivity, member), Genetics Society of America, Sigma Xi, Society for the Study of Evolution, Society for Integrative and Comparative Biology.

Manuscript Review: Acta Theriologica, Behavioural Brain Research, Behavioral Ecology, Biochemical Genetics, Bioscience, Biological Journal of the Linnean Society, BMC Evolutionary Biology, Conservation Genetics, Current Biology, Ecosphere, Emu, Evolution, Evolutionary Biology, Genome Biology and Evolution, Genome Research, Journal of Heredity, Molecular Biology and Evolution, Molecular Ecology, PLoS Genetics, Proceedings of the National Academy of Sciences, and Proceedings of the Royal Society Series B.

Proposal Review: Graduate Women In Science (GWIS), National Geographic Society, National Science Foundation, Council for Earth and Life Sciences (Netherlands), Swiss National Science Foundation.

Undergraduate mentoring: Dacey Mercer (Boston University), Justin Cooper (Boston University), Pallavi Joshi (Boston University), Nancy Chen (Harvard), Evin Nembhard (Harvard), Xiajuan Zheng (Harvard), Abigail McEwen (Illinois), Shaivya Pathak (ECU), Melissa Bujnis (ECU), Julia Horiates (ECU), Gregory Myers (ECU), Michael Dozier (ECU).

DEPARTMENTAL & UNIVERSITY SERVICE

University: Faculty Senate (2017-2019)

Department: Personnel Committee (2018/2019), Executive Committee (2015-2017), Behavioral Mechanisms search committee (2013), Fisheries Biology search committee (2016), Graduate committee (2012-2014), Website revision committee (2015), Genomics Core Facility steering committee (2014-present).

Thesis committee: Bade (2013), Cagle (2013), Colts (2013-2014), Clauser (2014-2015), Davidson (2013-2015)*, Denney (2014, Indiana State), Foote (2014-2016)*, Hasan (2016-2017), Newhouse (2013-2014)*, Newsome (2014-2016), Schroeder (2015-2018), Williams (2016-2017), Yoshioka (2014-2015)

Dissertation committees: Brooks (2017-present), Callaway (Indiana State, current), Chen (2013-2016), Cohen (2017-present) Driver*, (2017-present), Foote* (2017-current), Garrison (2017-present), Goodnight (2018-present), Newhouse* (2014-2019), Lansverk* (2012-2017), Twing (2012-2014).

*denotes committee chair

INVITED LECTURES

Kansas State University, Division of Biology, Spring 2019

University of Virginia, Fall 2018

University of North Carolina, Chapel Hill, Biology Department, Spring 2018

Smithsonian Institution, National Museum of Natural History, Fall 2017

Georgia Tech, Department of Biology, Fall 2017

Virginia Tech, Department of Biology, Fall 2017

Uppsala University, Department of Evolutionary Biology, Spring 2017

University of Nebraska Lincoln, Lamb Lecture (student invited), Spring 2017

University of California Berkeley, Museum of Vertebrate Zoology, Fall 2016
University of British Columbia, Department of Biology, Fall 2016
Society for Molecular Biology and Evolution, Gold Coast, Australia 2016
Avian Model Systems 9, Taipei, Taiwan 2016
Oklahoma State University, Department of Biology 2015
University of Wisconsin, Madison, Crow Institute for the Study of Evolution, Darwin Day 2014
East Carolina University, Department of Pharmacology and Toxicology, 2014
College of Charleston, Department of Biology 2014
Smithsonian Conservation Biology Institute 2012
North Carolina State University, Department of Biology 2012
University of North Carolina Asheville, Department of Biology 2012
St. Louis University, Department of Biology, 2011
Indiana State University, Department of Biology, Darwin Keynote and Tri-Beta speaker, 2011
Boston University, Biology Department, 2011
University of Southern California, Department of Molecular & Computational Biology, 2010
East Carolina University, Department of Biology 2010
Black Hills State University, Biology Department, 2010
University of Pennsylvania, Department of Biology, 2010
Ohio State University, Evolution, Ecology and Organismal Biology Department, 2009
University of Wyoming, Biology Department, 2008
Black Hills State University, Biology Department, 2008
University of Illinois, Population Ecology, Evolution and Conservation Department, 2008
Case Western Reserve University, Biology Department, 2008
Cornell University, Laboratory of Ornithology, 2007
Philadelphia Academy of Natural Sciences, 2007
Smithsonian Institution, National Museum of Natural History, Genetics Program, 2007
Willamette University, Biology Department, 2007
University Of Illinois, Institute for Genomic Biology, 2007

PRESENTATIONS AT PROFESSIONAL MEETINGS

(last 5 years, presenter in bold)

Lansverk, A, P Bolton, K Schroeder, S London, D Clayton, S Griffith, **C Balakrishnan**.
Genetic and behavioral divergence among zebra finch populations. Songbird and
Animal Communication Meeting. Millbrook , NY 2018

Louder, MIM, ME Hauber, MS Brewer, C Spottiswoode, MD Sorenson, CN
Balakrishnan. Genomic mechanisms for convergence in the recurrent evolution of

avian brood parasitism. International Ornithological Congress, Vancouver, Canada 2018

Newhouse DJ, Barcelo-Serra M, Gonser R, Tuttle E, Balakrishnan C. Transcriptomic impacts of parental care in white-throated sparrow (*Zonotrichia albicollis*) nestlings. International Ornithological Congress, Vancouver, Canada 2018

Newsome, WB, **J McKinnon**, CN Balakrishnan. Gene expression and reduced sexual dimorphism in threespine stickleback throat coloration. European Society for Evolutionary Biology, Groningen, Netherlands 2017

Louder, MIM, ME Hauber, MS Brewer, C Spottiswoode, MD Sorenson, CN Balakrishnan. Genomic mechanisms for convergence in the recurrent evolution of avian brood parasitism. American Ornithology Society, Canadian Society for Ornithology, Lansing, MI 2017

Newhouse DJ, Barcelo-Serra M, Gonser R, Tuttle E, Balakrishnan C. Transcriptomic impacts of parental care in white-throated sparrow (*Zonotrichia albicollis*) nestlings. American Ornithology Society, Canadian Society for Ornithology, Lansing, MI 2017

Lansverk, AL, MS Brewer, DF Clayton, SC Griffith, **CN Balakrishnan**. Behavioral and genetic consequences of domestication in zebra finches. American Ornithology Society, Canadian Society for Ornithology, Lansing, MI 2017

Louder, MIM, ME Hauber, MS Brewer, C Spottiswoode, MD Sorenson, **CN Balakrishnan**. Genomic perspectives on the origin of brood parasitism. Society for the Study of Evolution, Portland, OR 2017

Newsome, WB, **J McKinnon**, CN Balakrishnan. Gene expression and reduced sexual dimorphism in threespine stickleback throat coloration. Society for the Study of Evolution, Portland, OR 2017

Louder, MIM, ME Hauber, MS Brewer, C Spottiswoode, MD Sorenson, **CN Balakrishnan**. Genomic perspectives on the origin of brood parasitism. Winter Animal Behavior Conference, Steamboat CO 2017

Balakrishnan, CN Speciation and domestication in the zebra finch. Society for Molecular Biology and Evolution, Gold Coast, Australia 2016.

Balakrishnan, CN, A Bergland, R Gonser, W Warren, D Newhouse, E Tuttle. Divergence and degradation of a sex chromosome-like supergene. Avian Model Systems 9, Taipei, Taiwan, 2016.

Balakrishnan, CN, A Bergland, R Gonser, W Warren, D Newhouse, E Tuttle. Divergence and degradation of a sex chromosome-like supergene. Society for Integrative and Comparative Biology, Portland, OR 2016

Louder, MIM, HU Voss, TJ Manna, SS Carryl, SE London, CN Balakrishnan & ME Hauber. Shared neural substrates of species recognition in parental and brood parasitic songbirds Society for Integrative and Comparative Biology, Portland, OR 2016.

- Newhouse, D**, E Hofmeister, C Balakrishnan. The songbird transcriptome response to west Nile virus infection. American Ornithologists Union, Cooper Ornithological Society. Norman, OK, 2015.
- Newsome, W**. JS McKinnon, C Balakrishnan. Gene Expression and the Evolution of Reduced Sexual Dimorphism in a Threespine Stickleback Color Trait. International Conference on Stickleback Behavior and Evolution, Stony Brook, New York, 2015
- Hebets, E**, A Barron, C Balakrishnan, M Hauber, K Hoke. Communication goes multidisciplinary: a systems approach to animal signaling. Animal Behavior Society. Anchorage, AK, 2015.
- DaCosta, J**, C Balakrishnan, J Dongmo, M Sorenson. ddRAD-seq analyses of population structure in brood parasitic indigobirds (*Vidua spp.*). American Society of Naturalists, Society for the Study of Evolution, Society of Systematic Biologists. Raleigh, NC, 2014.
- Balakrishnan, C**, A Bergland, R Gonser, W Warren, D Newhouse, E Tuttle. Whole Genome Sequence of the Behaviorally Polymorphic White-Throated Sparrow 1: Population Genomics. American Society of Naturalists, Society for the Study of Evolution, Society of Systematic Biologists. Raleigh, NC, 2014.
- Tuttle, E**, M Korody, T Lear, R Gonser, M Houck, O Ryder, M Romanov, C Balakrishnan, A Bergland, W Warren. Whole Genome Sequence of the Behaviorally Polymorphic White-Throated Sparrow 1: Mapping Genes for Socio-Genomics. American Society of Naturalists, Society for the Study of Evolution, Society of Systematic Biologists. Raleigh, NC, 2014.
- Davidson, J** and C Balakrishnan. Towards an avian model for speciation genomics: gene expression divergence in zebra finches (*Taeniopygia guttata*). American Society of Naturalists, Society for the Study of Evolution, Society of Systematic Biologists. Raleigh, NC, 2014.
- Lansverk, AL**, C Balakrishnan, D Newhouse, M Sorenson and M Brewer. Accelerated evolution in brood parasitic finches: demography or selection? American Society of Naturalists, Society for the Study of Evolution, Society of Systematic Biologists. Raleigh, NC, 2014.